

Ethnobotany & Ethnomedicine in Vanuatu

Gregory M. Plunkett & Michael J. Balick
New York Botanical Garden

Presley Dovo
Vanuatu Department of Forests

Jean Pascal Wahe
Tafea & Vanuatu Kaljoral Senta

Dominik M. Ramík
Collège Technique & Lycée de Lowanatom

K. David Harrison
Swarthmore College

Vanuatu

• Melanesia

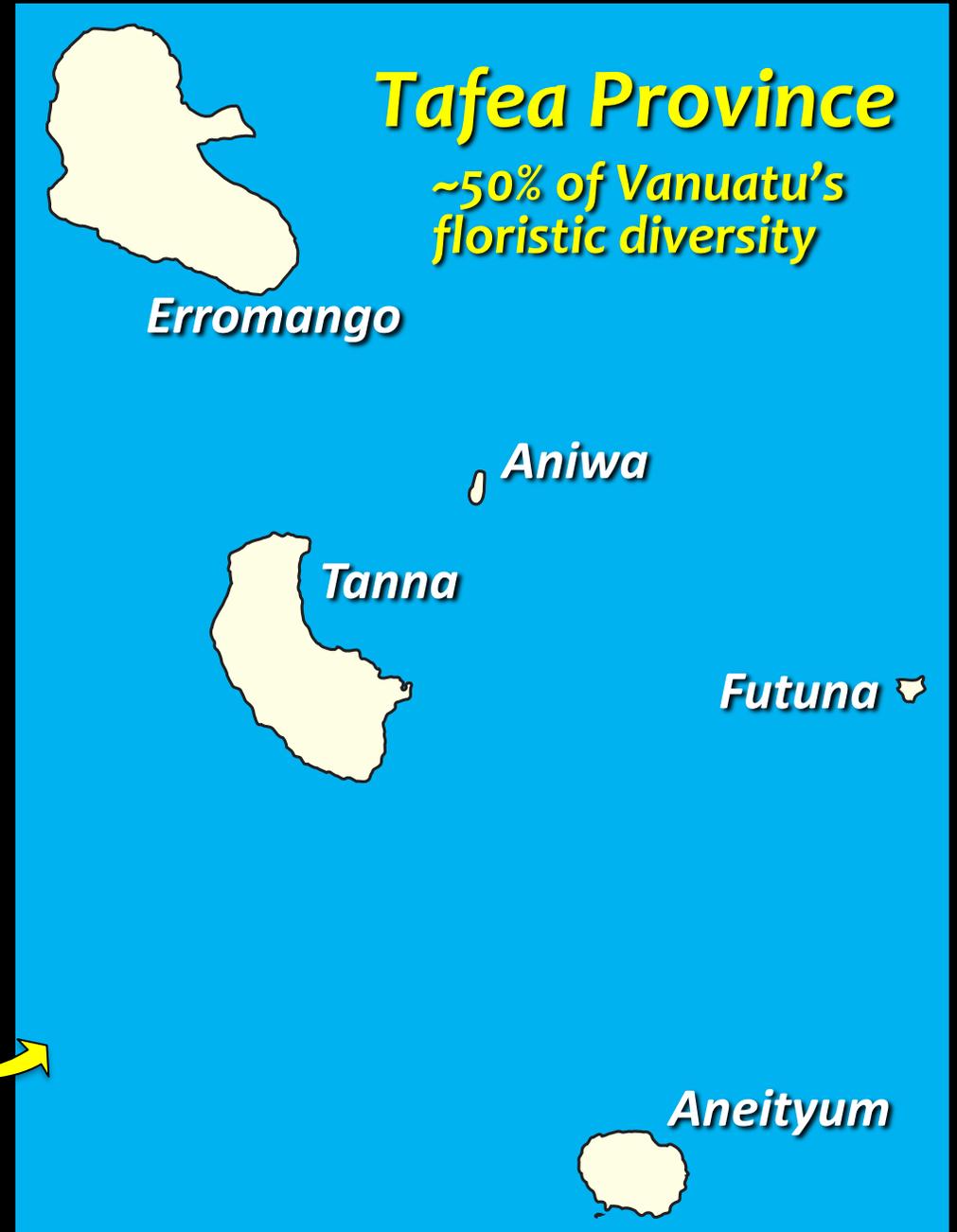


Vanuatu

- Melanesia
- 83 larger islands
- <350,000 people



Most of
our efforts
to date



***Kastom*: Vanuatu's Cultural Significance**

Population: 98% Indigenous (“*ni-Vanuatu*”)

Economy: 70% rural (subsistence economy)

Culture: Biodiversity-dependent,
still widely practiced
(but rapidly eroding)



Public Health in Vanuatu: Challenges

- **Disasters:**
 - Cyclones (Frequent, Severe)
 - 24 Volcanoes (9 Active)
 - Earthquakes
 - Tsumanis
 - Sea-level Rise
- **Infectious diseases**
 - malaria, dengue, TB, etc.
- **NCDs**
 - diabetes, stroke
- **Remoteness** (83 islands; 70% live in rural villages)



Port Vila



Cyclone Harold, 2020



Mount Yasur Volcano, Tanna



Earthquake, Port Vila, 2024

Western Medicine in Vanuatu



- 1 “Major” Hospital: Vila Central (Capital)
- 4 Provincial Hospitals:
 - Luganville (Santo)
 - Lenakel (Tanna)
 - Lolowai (Ambae)
 - Norsup (Malekula)

- 38 health centers & 104 dispensaries (provide primary care, maternity services, and vaccinations)
- 240+ aid posts (for first aid in remote villages, staffed by volunteer village health workers)

- All are:
 - Understaffed (doctors, nurses)
 - Lack specialists
 - Poorly equipped
 - Under-supplied with Rx

- Pharmacies limited to Port Vila, Luganville



Vila Central Hospital, Port Vila



Lenakel Hospital



Norsup Hospital



Latukwei Aid Post

Traditional Approaches to Health

- Disease (& other health issues) result as much from imbalances, conflicts, or infractions as from physical causes
- Root cause of disease is often seen as a combination of:
 - Physical
 - Spiritual
 - Relational

Western medicine treats only the physical
most ni-Vanuatu use it as a last resort because
it does not treat the whole problem
- Traditional healing is **restorative**, treating the whole person, & may involve:
 - Traditional medicines
 - Dreams to diagnose the spiritual or relational issues
 - Advice on repairing/restoring relationships

Traditional Approaches to Health: Practitioners

- Knowledge of traditional healing may be:

- **General** (known by many)
- **Special/secret** (known by select few)

Either way, such knowledge must be passed down across generations

- **Knowledge dispersed** within and across communities

- **“Klevas” (~clairvoyants)**: people with particular skills/powers to diagnose root causes
- **Others** (e.g., tupanans in Tanna) with spiritual powers in well defined domains, associated with *tabu* stones
- **Elders (and those whom they teach)**, who have received general knowledge from their own elders

Such knowledge often “tabu”; treatment part of kastom exchange

Traditional Medicines

- May be:
 - A single plant species
 - A mixture of many plant species (=most common)
 - “Lif Meresin”—prepared from leaves, bark (sometimes also flowers, roots), with particular treatments (boiling, chewing, etc.)
 - Part of a holistic healing approach (physical, spiritual, relational)
- **Forests** are the major sources of *lif meresin*
 - Often in *tabu* areas
 - Adds urgency to forest conservation efforts



Single plant, chewed and spat



Mix of several plant species

Plants mo Pipol blong Vanuatu: 2013–Present

(Plants & People of Vanuatu)

An International Partnership to:

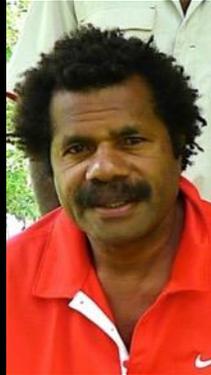
- document Vanuatu's plant & fungal diversity
- **help preserve traditional, plant-based knowledge (incl. languages)**
- build local capacity
- **understand, conserve & restore Vanuatu's forest habitats**

Local Partners

Vanuatu Forestry Dept & National Herbarium



Chanel
Sam



† Philemon
Ala



Presley
Dovo



Kevin
Kausei



Thomas
Doro



Stephanie
Sali



James
Ure



Charlie
Paul

Vanuatu & Tafea Kaljoral Senta

*Collège Technique
et Lycée de Lowanatom*



Jean-Pascal
Wahe



† Jacob
Kapere



Jimmy
Kuautonga



Dominik Ramík

International Partners



**New York
Botanical
Garden**



Greg Plunkett



Mike Balick



Kayla Wheatley



Morgan Halane



**Univ. of the
South Pacific**



Marika Tuiwawa



**Univ. of
Hawaii-
Manoa**



Tom Ranker



Tamara Ticktin



Anthony Amend



Ashley McGuigan



Andre Boraks



Alifereti Naikatini



**Institut
de recherche
pour le
développement**



Laurence Ramon



**California
State Univ.
East Bay**



Brian Perry



Jonathan del Rosario



**Swarthmore
College**



David Harrison

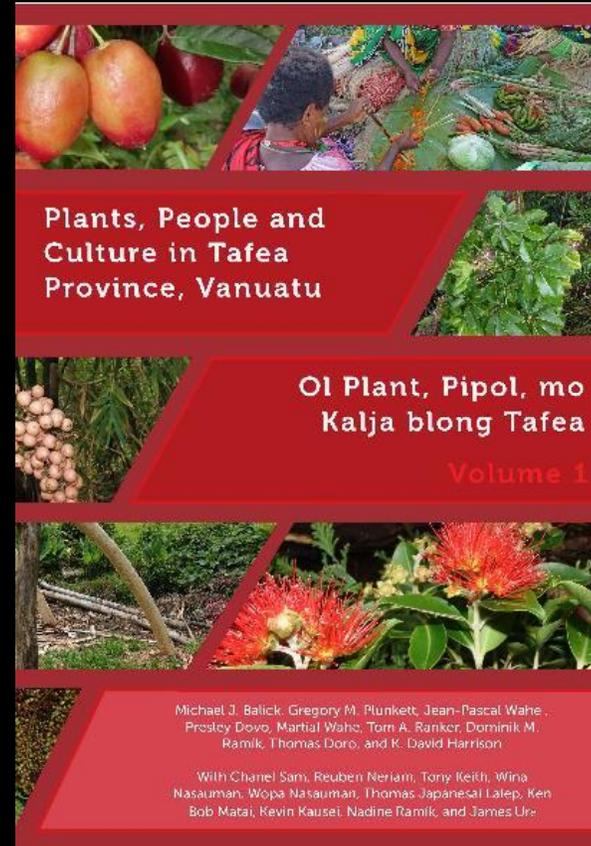


Neal Kelso

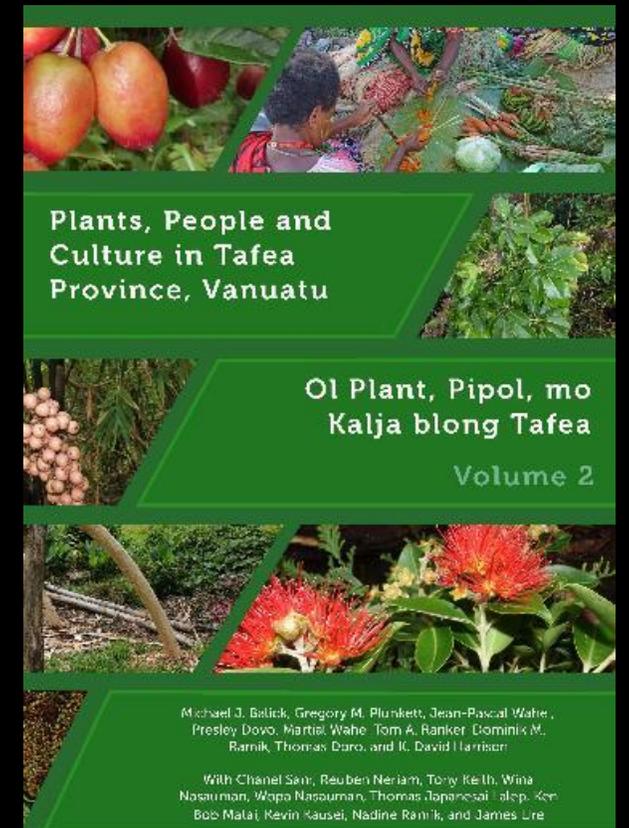
“Plants, People and Culture in Tafea Province, Vanuatu”: Documenting Indigenous names & general plant uses

Interview local people about to how plants are used for:

- Food
- House construction
- Canoe building
- Traditional clothing
- **Primary health care**



2025,
2 Volumes,
957 Pages



Skin



Ipomea indica (I)

- Sap of stem to heal cuts and wounds
- Leaves chewed and spit into ear to treat infection

Eyes



Commelina diffusa (N)

To treat **conjunctivitis**, cut the fresh stem and drip the sap into the eye 2X per day for 2 days (until redness is gone)

Flavonoids: reduce redness and swelling

Phenolic acids: antibacterial

+ Other compounds

**Tooth
Pain**



Hoya australis
(N)

Cut stem, drip latex on painful tooth
to treat toothache;
3x daily, until pain reduced

**Gastro-
intestinal**



***Vigna marina* (N)**

To treat
constipation,
add several
handfuls
of leaves to
1.5 L water;
drink 1x

Viral Infection



Physalis angulata (I)

To treat dengue fever,
squeeze juice from
leaves into a cup;
drink 3x daily until
symptoms resolve

Ritual & Belief



Ficus glandifera (N)

The inside bark is mashed, boiled in hot water, then use it to wash a child around 1 year old.

This ensures that he will grow strong and enables him to crawl faster.

Men's Health



Hedycarya dorstenioides (N)

To clean out the male urinary tract and makes the urine stream strong, tender sapling shoots are chewed as a medicine, drinking the liquid and spitting out the solid remains.

Young shoots are chewed and spat out as a male sexual enhancer.

Women's Health



Calophyllum neoebudicum (N)

Leaves are used to treat a woman made ill by a male spirit (*Paralelcei*). Symptoms include miscarriage, prolonged periods, dreams involving the male spirit, or dreams of snakes in the forest.

Famine Food



Curculigo orchioides (N)

Important emergency food on Aneityum Island.

Dig up the roots & roast them on embers.

Chew the starchy material, spitting out the fibers.

No taste but enables survival.

(Also has important uses in several other traditional medicine systems)

Curculigo orchioides & Abnormal Fear Memory

(In Vivo Study)

- **Stressful events** (wars, natural disasters, etc.) can **trigger strong emotional responses** expressed as fear
- **Curculigoside (CUR)** from *Curculigo orchioides* can help eliminate fear memory
- **CUR blocked PTSD-like-behavior** *in vivo*

(Yang and Zu. 2023. Phytotherapy of abnormality of fear memory: A narrative review. *Fitoterapia* 169: 105618.)



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Contents lists available at ScienceDirect

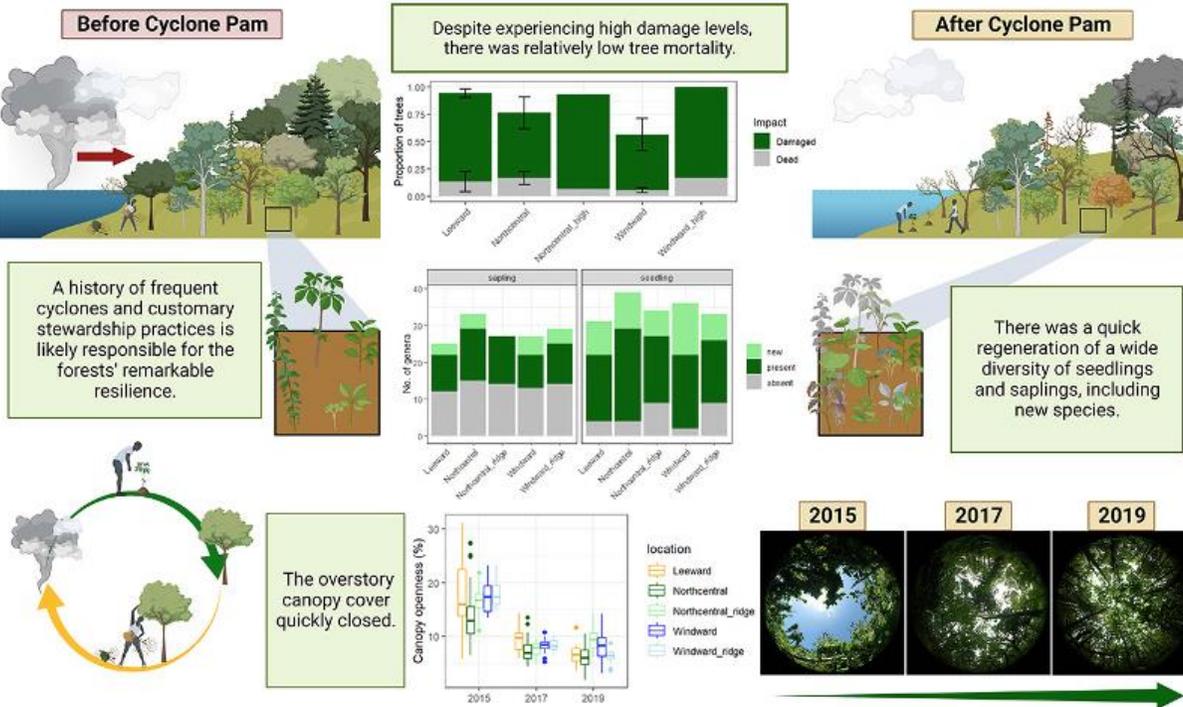
Science of the Total Environment

journal homepage: www.elsevier.com/locate/scitotenv

High resilience of Pacific Island forests to a category- 5 cyclone

Tamara Ticktin^{a,*}, Ashley McGuigan^a, Frazer Alo^b, Michael J. Balick^c, Andre Boraks^a, Chanel Sam^b, Thomas Doro^b, Presley Dovo^b, Thomas Ibanez^d, Alivereti Naikatini^e, Tom A. Ranker^a, Marika V. Tuiwawa^e, Jean-Pascal Wahe^f, Gregory M. Plunkett^g

Resilience of Vanuatu Forests After a Category-5 Cyclone



Impact of People on Forests

Cyclone frequency & **customary stewardship** practices likely foster forest resilience in Vanuatu.

Kastom Forest Conservation

A New Approach to Indigenous-Led Conservation

- Relies on **traditional governance** (chiefly system)
- Emphasizes **local control** (& often small parcels of land)
- Uses **kastom practices** embedded in the culture
- Communities **motivated to conserve medicinal** & other useful plants





Sakerau Kastom Skul

"Blong lanem, rivaevem, promotem, yusum mo gro wetem ol gudfala kastom save."

"To learn, revive, promote, use, and grow with our wonderful traditional knowledge."

Kastom Schools:

formal teaching programs that convey traditional knowledge, including ethnomedicine



Race Against Time: Passing of Elders & Experts



Tankyu Tumas !

***Tanak asori !
Nawurenig alpas !
Tabeana gaivua !***

***Varean !
Fa'afetai !
Tankiu asul !***

